PROPONENTS ENVIRONMENTAL ASSESSMENT

SIERRA PACIFIC POWER COMPANY 608-621 TIE LINE PROJECT HIRSCHDALE, CALIFORNIA

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LIST OF ACRONYMS & ABBREVIATIONS

CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Data Base
Corps	U.S. Army Corps of Engineers
CPUC	California Public Utilities Commission
JBR	JBR Environmental Consultants, Inc.
kV	Kilovolt
LRWQB	Lahontan Regional Water Quality Control Board
NPDES	National Pollutant Discharge Elimination System
PAR	PAR Environmental Services, Inc.
SPPCo	Sierra Pacific Power Company
USGS	United States Geological Survey

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1.0 SUMMARY

Sierra Pacific Power Company (SPPCo) is proposing to construct a tie line between two existing power transmission lines near Hirschdale, Nevada County, California. The project consists of constructing approximately 3,500 feet of new 60 kilovolt (kV) circuit on an existing 12.5 kV distribution line (the 7600 distribution circuit) (SPPCo Exhibit B). The 18 existing power poles, which were originally constructed around 1930, would be replaced with new poles that are approximately nine feet taller. The new poles would be placed adjacent to the existing poles and three new conductors and insulators would be added above the existing power lines. Minor insulator and crossarm repairs will also be performed on the existing 621 line between the new tie line and the North Truckee substation as required.

No other alternatives are being considered other than the "no project" alternative. Only the proposed site was considered because the project is a modification of an existing power transmission line.

This Proponents Environmental Assessment (PEA) evaluates potential environmental impacts that could result from construction and operation of the project. As required by California Public Utilities Commission (CPUC) guidelines, the California Environmental Quality Act (CEQA) Initial Study Checklist was used as the format for describing potential impacts. Impacts resulting from the project would occur during construction; no significant impacts would occur as a result of operations. Because all project impacts are less than significant, no mitigation is proposed.

2.0 PROJECT DESCRIPTION

Sierra Pacific Power Company (SPPCo) is proposing to construct a tie line between two existing power transmission lines near Hirschdale, Nevada County, California. The project is located in Section 34, Township 18 North, Range 17 East, MDB&M (SPPCo Exhibit A). The project consists of constructing approximately 3,500 feet of new 60 kV circuit on an existing 12.5 kV distribution line (the 7600 distribution circuit) (SPPCo Exhibit B). The 18 existing power poles, which were originally constructed around 1930, would be replaced with new poles that are approximately nine feet taller. The new poles would be placed adjacent to the existing poles and three new conductors and insulators would be added above the existing power lines. Minor insulator and crossarm repairs will also be performed on the existing 621 line between the new tie line and the North Truckee substation as required. All of the proposed tie line route is on an existing SPPCo easement on private property.

Purpose and Need.

The purpose of the new 60 kV circuit (tie line) is to provide a reliable alternate source of power for SPPCo's Glenshire substation. The Glenshire substation does not have a second power source and the primary source is aging and difficult to maintain. Normally, Glenshire substation is sourced via SPPCo's 608 line from Truckee, and backed up by this same line from the Reno Area (SPPCo Exhibit C). However, the Reno source was removed in 2004 as a result of intense development in west Reno, and because of the age and exposure of the 608 line as it traversed the Truckee River canyon. The 608 line from Reno is almost 28 miles long and approximately 70 years old. It is difficult to access and maintain as it passes through the Truckee River canyon. On the other hand, the 621 line from Truckee to Glenshire is slightly over 9 miles long. Most of the 621 line has been rebuilt in recent years and the terrain is predominantly flat and accessible. Providing Glenshire substation with an alternate source via the 621 line will result in more reliable system that is also easier and less costly to maintain.

Construction.

The new tie line will be constructed using conventional labor and equipment common to the utility industry. SPPCo will use a small, existing parking area near the line to temporarily stage wood poles and hardware for the job. This area would also be used to frame new structures that would be installed in a single day's work. Each framed structure will be individually transported to its destination using either the line truck or backhoe in order to minimize disturbance and traffic within the right-of-way. In the vicinity of a wetland, two poles will be transported by helicopter and placed in a hand-excavated hole.

A typical structure replacement/installation would begin with a line truck drilling a hole adjacent to the existing pole using a truck-mounted auger, then setting the new pole. Several linemen

supported by a boom truck would then transfer the existing distribution circuit and appurtenances to the new pole. Upon completion, the old pole would be cut at the base and removed. After all structures have been replaced, the three new wires that make up the 60 kV circuit would be strung and attached to the new insulators at the pole tops.

Seven of the 18 structures would be accessed using existing roadways, while nine would require overland travel within the existing right of way over low brush. Prior to mobilizing equipment, vegetation would be cut to ground level using a hydro ax or other suitable methods to avoid puncturing vehicle tires. As mentioned above two structures would involve the excavation of holes by hand and the structures would be flown in by helicopter. New wire for the 60 kV circuit would be strung using a line truck at one end and a trailer mounted drum puller on the other end of the project.

With the exception of the excavator, all equipment on the project will have rubber tires. Typical vehicles and equipment used to construct the project include:

- Pickup trucks
- Line truck with auger
- Boom/bucket truck
- Backhoe
- Semi-tractor and trailer
- Track excavator

Ground disturbance for each new pole excavation is estimated to be 300 square feet, or a total of 0.12 acre for 18 poles. No new access roads are proposed.

3.0 ALTERNATIVES

SPPCo evaluated a number of alternatives to determine the most efficient and effective action to resolve inadequacies in the existing system. Because the only feasible solution is to construct the tie line by modifying the existing 7600 distribution circuit, only the proposed action and the No Project alternative are being considered in this document.

The No Project Alternative would result in the continued operation of the existing distribution system. There would be no improvement in system reliability or ease of maintenance. The No Project Alternative would also have no environmental effects.

4.0 IMPACT ASSESSMENT AND DISCUSSION

4.1 INTRODUCTION

As required by CPUC Rule 17.1 and General Order 131-D, the CEQA Initial Study checklist was used as a basis for the impact analysis for the proposed project. In conformance with CEQA, the PEA provides information to the CPUC regarding the potential environmental consequences of the project. The standards of significance of all impact categories analyzed in the PEA derive from Appendix G of the revised CEQA Guidelines and are described below. The standards of significance include those regulations and policies from resource agencies and local governments with jurisdiction over the project. Potential impacts are categorized as potentially significant, less than significant with mitigation incorporated, or less than significant. If an impact in the checklist would not occur or is not applicable to the project, "no impact" is checked in the table.

4.2 AESTHETICS

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓

4.2.1 Environmental Setting

The project site is located in a rural area within an existing power line utility corridor. The north end of the project alignment is fairly densely covered with shrubs and scattered pine trees. The shrubs become less dense toward the central portion of the alignment, which passes through a small residential area. At the south end of the residential area the alignment ascends a steep hillside through an approximately 30-foot wide cleared area bounded by pine woodland.

4.2.2 Standards of Significance

Impacts are considered significant if they alter the visual character of the site. Significant impacts would also occur if the project altered existing scenic resources, or if the project created a new light source that affected the visibility of the site and views from adjacent areas.

4.2.3 Answers to Checklist Questions

Question A

No designated scenic vistas are located at or near the site. The project would modify an existing power transmission line by installing taller poles and a new set of wires. The visual effect of the modified transmission line would be minimal, as viewed from public lands and public roadways.

Mitigation Measures

No mitigation is required.

Question B

No scenic resources such as trees, rock outcrops and historic buildings would be affected by the project.

Mitigation Measures

No mitigation is required.

Question C

The 18 existing power poles would be replaced with new poles that are approximately nine feet taller. The new poles would be placed adjacent to the existing poles and three new conductors and insulators would be added above the existing power lines. These relatively minor changes to the transmission line would have only a minimal effect on the visual character or quality of the site.

Mitigation Measures

No mitigation is required.

Question D

No new source of light or glare is proposed for this project.

Mitigation Measures

No mitigation is required.

Findings

The project would not substantially affect aesthetics.

4.3 AGRICULTURE

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?				✓
c. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				✓

4.3.1 Environmental Setting

All of the proposed alignment is within a utility right-of-way on private property, none of which appears to have ever been used for agriculture.

4.3.2 Standards of Significance

If the project area included farmland, any loss of use or conversion to another use would have been considered significant.

4.3.3 Answers to Checklist Questions

Question A

There is no farmland within the project area.

Mitigation Measures

No mitigation is required.

Question B

The project area is not zoned for agricultural use or Williamson Act contract.

Mitigation Measures

No mitigation is required.

Question C

The project area does not include farmland.

Mitigation Measures

No mitigation is required.

Findings

The project would not affect agricultural resources or operations.

4.4 AIR QUALITY

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Conflict with or obstruct implementation of the applicable air quality plan?				✓
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standards (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			✓	
d. Expose sensitive receptors to substantial pollutant concentrations?			✓	
e. Create objectionable odors affecting a substantial number of people?				✓

4.4.1 Environmental Setting

The project site is in a rural setting in Nevada County, California, approximately 15 miles southwest of Reno/Sparks, Nevada, the closest large urban area. The town of Truckee, California is approximately six miles southwest of the project area. Nevada County occasionally experiences concentrations of ground level ozone exceeding health-based standards. The project proponent will obtain an Air Quality Permit from the Northern Sierra Air Quality Management District for the use of an internal combustion engine generator to power hand tools. Fugitive dust control measures (e.g., road watering) will be taken to keep dust generation at a minimum, in compliance with the project's Dust Control Plan.

4.4.2 Standards of Significance

An effect that would cause California or national air quality standards to be exceeded would be considered significant.

4.4.3 Answers to Checklist Questions

Question A

The project will not conflict with or obstruct an air quality plan.

Mitigation Measures

No mitigation is required.

Question B

During the construction phase of the project, air quality could be affected by exhaust emissions from trucks, small generators and other motorized equipment, as well as generation of dust from ground disturbance and vegetation clearing. However, any increase in emissions would be of short duration. A water truck would be used to dampen disturbed areas and minimize dust generation during construction. There would be no long-term impact to air quality from operation of the tie line.

Mitigation Measures

No mitigation is required.

Question C

Operation of a few internal combustion engines in equipment and disturbing approximately 0.12 acre of ground surface during the construction phase would not be expected to have a measurable effect on the area's air quality.

Mitigation Measures

No mitigation is required.

Question D

The project would not expose sensitive receptors to substantial pollutant concentrations because only minimal levels of exhaust emissions and dust would be generated and there are no sensitive receptors in the project area.

Mitigation Measures

No mitigation is required.

Question E

The project is not anticipated to generate any objectionable odors.

Mitigation Measures

No mitigation is required.

Findings

The project would not have a significant effect on air quality.

4.5 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			✓	
b. Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			✓	
c. Have a substantially adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?				✓

4.5.1 Environmental Setting

The north portion of the project area is dominated by sagebrush scrub vegetation with scattered pine trees. The south portion of the utility corridor passes through a pine woodland. The California Natural Diversity Database (CNDDB) of records of occurrences of listed and sensitive species for the Martis Peak quad identified the following species (JBR, 2006):

	Common Name	Scientific Name	Federal Status*	California Status*
	Animals			
1	Mountain yellow-legged frog	*Rana muscosa*	E**	None
2	Northern goshawk	*Accipiter gentilis*	None	None
3	Willow flycatcher	*Empidonax traillii*	None	E
4	Lahontan cutthroat trout	*Oncorhynchus clarki henshawi*	T	None
5	Sierra Nevada mountain beaver	*Aplodontia rufa californica*	None	None

Plants				
6	Carson Range rockcress	*Arabis rigidissima* var. *demota*	None	None
7	Plumas ivesia	*Ivesia sericoleuca*	None	None

Notes: * E = Endangered, T = Threatened
** Endangered status only in San Gabriel, San Jacinto, and San Bernardino mountains.

Each of the listed and sensitive species identified by the CNDDB report is discussed below.

Mountain yellow-legged frog

One occurrence of the mountain yellow-legged frog was reported by the CNDDB from Gray Creek near its confluence with the Truckee River, approximately 2.6 miles east of Hirschdale. This species is reported to always remain within a few feet of water. Because no perennial streams are in the project area, it is very unlikely that this species would be encountered.

Northern goshawk

Two northern goshawk nest locations were reported in 1996, both of which were over four miles from the project boundary to the south and southeast. Goshawks normally nest in or near coniferous forest and near water. Nests are typically in conifer and aspen trees. The southern end of the project area has some potential as goshawk habitat because Jeffrey pines and aspens are present and the Truckee River is within a quarter mile. However, the habitat is less than ideal because of the residential area nearby and year-round human disturbance. Goshawks could very well forage in the project area but nesting seems much less likely.

Willow flycatcher

The one CNDDB report of this species dates from 1992, on an island in the Truckee River, approximately 0.5 miles east of Hirschdale. This species requires extensive thickets of low, dense willows on the edges of meadows, ponds, or backwaters. The small willow patches found in the project area are too small, dry, and open to be suitable habitat for this species.

Lahontan cutthroat trout

This species is listed as threatened under the Endangered Species Act. The CNDDB occurrences are from the east, middle, and west forks of Martis Creek, approximately three miles southwest of the project area in a different watershed. This species must also be assumed to be present in the Truckee River nearby. Although there is no suitable habitat for this species in the project area itself, the potential exists for indirect effects to the Truckee River from erosion or spills in tributary channels.

Sierra Nevada mountain beaver

The mountain beaver record is from Juniper Creek, approximately three miles southeast of the project area. Mountain beavers require dense patches of deciduous trees and shrubs, an

abundance of water, and plentiful forbs. No habitat suitable for mountain beavers was observed in the project vicinity and their presence is very unlikely.

Carson Range rockcress

The two recorded occurrences of this species are approximately six miles southeast of the project area. The species is reported to be associated with broadleaved upland forest and montane coniferous forest on well-drained, stony soil underlain by basic volcanic rock. The reported range in elevations for the species is from 7,400 to 8,400 feet, considerably above the highest elevations in the project area (approximately 5,700 feet).

Plumas ivesia

Four records for this species are found within two miles of the project area (including one on the Boca USGS quad to the north), the nearest is approximately 0.5 mile west. Habitat for this species is described as Great Basin scrub, lower montane coniferous forest, meadows, and vernal pools, from 4,750 to 6,550 feet elevation. Suitable habitat for this species appears to be present in the project area.

4.5.2 Standards of Significance

Any measurable adverse effects to a listed or sensitive species, critical habitats, or sensitive habitats such as wetlands or riparian areas would be considered significant.

4.5.3 Answers to Checklist Questions

Question A

Of the sensitive animal species identified in the CNDDB report for the Martis Peak quad, only the goshawk has a reasonable probability being found in the project area. Goshawks are unlikely to nest in the area because of human disturbance but they could hunt for birds and small mammals. Project impacts are likely to be minimal because no habitat will be affected, disturbance from construction will be brief, and alternative habitat is available. The threatened Lahontan cutthroat trout is assumed to be present in the Truckee River, but there should no be impact as long as there is no degradation of water quality in tributary channels draining the project area.

The Carson Range rockcress is the only sensitive plant species in the CNDDB report with suitable habitat in the project area. The species has been reported from nearby and the habitat in the project area appears to be suitable. Although considered rare, the plant is not protected by the State of California or the federal Endangered Species Act. Potential impacts to this species would be minimal given the small amount of ground disturbance proposed.

Mitigation Measures
No mitigation is required.

Question B
There are three small ephemeral drainages in the project area but no perennial waters. Typical riparian species such as willows, aspen, and alders are found in the south portion of the project utility easement. Direct impacts to riparian species from excavating and installing new poles adjacent to the existing poles would be minimal. Some of this vegetation would be trimmed for access or crushed by vehicle travel, but these species are resilient and would be expected to recover naturally. Vegetation within power line easements is regularly cut during routine utility corridor maintenance.

Mitigation Measures
No mitigation is required.

Question C
A jurisdictional delineation of the alignment (JBR, 2006) identified a 70-foot long segment within the transmission line right-of-way as meeting the criteria of a wetland. None of the existing transmission line poles are located within the wetland; the nearest pole is 20 feet to the southeast. Holes for the two structures located adjacent to the wetland would be excavated using hand tools and the structures would be flown in using a helicopter. These steps will eliminate impacts to the wetland.

Mitigation Measures
No mitigation is required.

Question D
The modification of the overhead power transmission lines and poles would not be an impediment to wildlife movement.

Mitigation Measures
No mitigation is required.

Question E
The project would not conflict with local policies or ordinances protecting biological resources.

Mitigation Measures
No mitigation is required.

Question F

There are no known Habitat Conservation Plans or other conservation plans in effect for the project area. The project will take place within an existing utility easement on private land.

Mitigation Measures

No mitigation is required.

Findings

The project would not significantly affect biological resources.

4.6 CULTURAL RESOURCES

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			✓	
b. Cause a substantial adverse change in the significance of an archaeological resources pursuant to Section 15064.5?			✓	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
d. Disturb any human remains, including those interred outside formal cemeteries?			✓	

4.6.1 Environmental Setting

PAR Environmental Services, Inc. (PAR) completed a literature search and a cultural resources survey in the project area (PAR, 2005; 2006). The survey of the project area identified four historical resources including the existing 1930s era power distribution line. These resources (a metate fragment, a scatter of historic and modern domestic debris, a springbox that is presently in use, and the transmission line itself) do not appear to satisfy the criteria for identifying significant historic resources as listed in the NRHP or CEQA Guidelines. These resources also appear to lack integrity and no further work is recommended (PAR, 2006).

If prehistoric or historic resources are encountered during construction, work at the discovery site will be halted until the find can be evaluated by a qualified archaeologist. Federal laws and regulations, including the Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001) and 43 CFR 10, protect Native American graves and other grave related materials. Similarly, the California Environmental Quality Act Section 15064.5 (4) (d), Section 5097.94 of the California State Public Resources Code, and Section

7050 of the California Health and Safety Code provide measures to protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for appropriate handling of such remains. If human remains are encountered, work would halt in that vicinity and the Nevada County coroner would be notified immediately. An archaeologist would be contacted to evaluate the situation.

4.6.2 Standards of Significance

Project impacts would be considered significant if they destroyed a unique paleontological or geological resource or changed the significance of an archaeological or historical resource.

4.6.3 Answers to Checklist Questions

Questions A and B

No significant historical or archaeological resources are known to be present in the project area. If historical or archaeological resources (e.g., artifacts of stone or bone, structural remains, fire pits, etc.) are discovered during construction, work in the vicinity will be halted and the appropriate agencies will be notified. A qualified archaeologist will determine whether additional study is required.

Mitigation Measures

No mitigation is required.

Question C

No unique paleontological resources or unique geologic features are known to be present in the project area.

Mitigation Measures

No mitigation is required.

Question D

No human remains are known to be present in the project area. If human remains are discovered during construction, work in the vicinity will be halted and the Nevada County coroner's office will be notified. If the remains are determined to be Native American, notifications will be made in accordance with applicable laws and regulations.

Mitigation Measures

No mitigation is required.

Findings

There are no known significant cultural resources in the project area. Unexpected discoveries of cultural resources during construction would be evaluated at the time of discovery.

4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (ii) Strong seismic ground shaking? (iii) Seismic-related ground failure, including liquefaction? (iv) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d. Be located on expansive soil, as defined in Table 18-a-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waster water disposal systems where sewers are not available for the disposal of waste water?				✓

4.7.1 Environmental Setting

Nevada County has not been identified as having Alquist-Priolo Earthquake Fault Zones (California Geological Survey, 2006). Soils within the project area have been mapped by the U.S. Forest Service (USFS), and are described in the Soil Survey of the Tahoe National Forest Area, California (USFS, 1994). Soils within the survey area include the following three mapped soil types:

Euer-Martis Variant complex, 2 to 5 percent slopes

This soil complex is found between 5,500 and 6,300 feet AMSL and includes 55 percent Euer soils and 35 Martis Variant soils. The Euer series consists of deep, well drained soils formed in glacial outwash and material from volcanic sources. These soils are found on terraces. The Martis series consists of deep, well drained soils formed in glacial till and outwash from mixed

sources, mainly volcanic. These soils are found on glacial outwash plains. These soils are found in the central portion of the tie line route.

Euer-Martis Variant complex, 5 to 30 percent slopes
This complex includes 60 percent Euer soils and 30 percent Martis Variant soils. The characteristics of these soils are described above. These soils occur at the northern end of the proposed route.

Jorge-Rubble Land complex, 30 to 70 percent slopes
This soil includes 55 percent Jorge series soils and 30 percent Rubble Land. Jorge soils occur on gently sloping to strongly sloping plateaus and moderately steep and steep mountains at elevations of 6,000 to 9,000 feet. These well drained soils formed in residuum from volcanic flow rock of andesite, basalt, and latite. Rubble land includes angular stones and cobbles with some soil material between fragments. This soil type occurs in the southern portion of the project area south of the community of Hirschdale.

4.7.2 Standards of Significance
Impacts would be significant if the project was located on highly unstable soils that could not support the transmission line poles or if the project resulted in substantial erosion.

4.7.3 Answers to Checklist Questions

Question A
There are no known fault zones in the project area and no Alquist-Priolo Earthquake Fault Zone map has been produced for Nevada County.

Mitigation Measures
No mitigation is required.

Question B
The minimal amount of ground disturbance proposed for installation of new poles is unlikely to have any measurable effect on soil erosion or cause a loss of topsoil.

Mitigation Measures
No mitigation is required.

Question C
Because the existing poles have been in place since the 1930s, it is unlikely that unstable soils are present because the effects would have become evident by now.

Mitigation Measures
No mitigation is required.

Question D
Expansive soils are not known to be present, nor is there any indication of problems with the existing transmission line poles.

Mitigation Measures
No mitigation is required.

Question E
No new septic tanks or other waste disposal systems are proposed.

Mitigation Measures
No mitigation is required.

Findings
The project would not adversely affect soils or geology.

4.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?			✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and , as a result would it create a significant hazard to the public or the environment?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.				✓

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

4.8.1 Environmental Setting

The project is not located near a hazardous materials site. Nevada County has one Superfund site at the Lava Cap Mine in the western portion of the county. The California Department of Toxic Substances Control lists 35 records for Nevada County, all of which are in either Grass Valley or Nevada City. The fire hazard for the area is high because of the large expanse of timber and brush nearby.

4.8.2 Standards of Significance

Any release of hazardous materials, a substantial increase in the risk of wildfire, or interference with an emergency response plan would be considered a significant project impact.

4.8.3 Answers to Checklist Questions

Question A

The project does not include routine transport, use, or disposal of hazardous materials that would constitute a significant hazard to the public or environment. Small quantities of hazardous materials that are commonly used, transported, or stored in association with construction and maintenance of power lines would be present on the construction site. None of these materials would exceed reportable quantities. Any accidental spills would be cleaned up in accordance with SPPCo's standard operating procedures.

Mitigation Measures

No mitigation is required.

Question B

The quantities of hazardous materials that might be present on the site during construction are so small that the risk of accidental release to the public or the environment is negligible.

Mitigation Measures

No mitigation is required.

Question C
No schools are present or proposed within 0.25 mile of the project.

Mitigation Measures
No mitigation is required.

Question D
The project is not located on a hazardous materials site.

Mitigation Measures
No mitigation is required.

Question E
The project area is not within an airport land use plan or within two miles of a public airport.

Mitigation Measures
No mitigation is required.

Question F
The project area is not in the vicinity of a private airstrip.

Mitigation Measures
No mitigation is required.

Question G
The project would not interfere with an emergency response plan or emergency evacuation plan.

Mitigation Measures
No mitigation is required.

Question H
The operational phase of the project would not increase the risk of fire compared to existing conditions; however, the construction phase would require overland travel by trucks and other equipment that could increase the risk of fire. The fire hazard would be managed by implementing the following measures during construction:

1. No open burning, campfires, or barbecues will be allowed on the transmission line right-of-way, at construction staging areas, helicopter fly yards, substations, on access roads, or in any other construction areas.

2. SPPCo's construction manager must approve any welding or cutting. Approved welding or cutting activities will only be performed in areas cleared of vegetation a minimum of 10 feet around the area.

3. All internal combustion engines will be equipped with approved spark arresters maintained in good working order. Light trucks and cars with factory-installed (type) mufflers in good condition may be used on roads cleared of all vegetation with no additional equipment required. Vehicles equipped with catalytic converters are potential fire hazards and will be parked on cleared areas only.

4. Smoking will be prohibited during the fire season except in designated cleared areas. Smoking will be prohibited while operating equipment or while walking or working in areas with vegetation.

5. The use of torches, fuses, highway flares, or other warning devices with open flames will be prohibited. SPPCo and construction contractors will use only electric or battery-operated warning devices within the project area.

6. Equipment parking areas and small stationary engine sites will be cleared of all extraneous flammable materials. Gas and oil storage areas will be cleared of extraneous flammable material. Fuel tanks must be grounded.

7. SPPCo will conduct on-site pre-construction training to inform work crews of fire safety measures, including designation of authorized smoking areas.

8. SPPCo and the construction contractor(s) will ensure continuous access to roads for emergency vehicles during construction.

9. The following fire suppression equipment will be provided for all motorized vehicles and will be maintained in good working order at all times during construction.: one long-handled round point shovel, one ax or Pulaski fire tool, one 5-pound ABC dry chemical fire extinguisher, one 5-gallon water backpack (or other approved container) full of water or other extinguishing solution.

10. During periods of heightened fire danger, the following equipment shall be available in the construction area or stationed near high-risk construction work sites: one fire suppression vehicle equipped with a water tank of minimum 500 gallons capacity, 250 feet of ¾-inch heavy-duty rubber hose, and a pump with a discharge capacity of at least 20 gallons per minute. The pump shall have fuel capacity to operate for at least 2 hours. The fire suppression vehicle shall be

outfitted with one tool cache for fire use only containing at a minimum: two long-handled round point shovels, two axes or Pulaski fire tools, and one chainsaw of 3.5 or more horsepower with a cutting bar of at least 20 inches in length.

11. If a fire does start in the project area during construction, field crews will immediately dial 911 (or use field radios) to report the fire. If they can do so safely, field crews will attempt to contain the fire using on-site equipment and water. All fires will be reported to the jurisdictional fire agency regardless of size and actions taken.

Mitigation Measures
The measures incorporated above will reduce the risk of fire to less than significant. Therefore, no mitigation is required.

Findings
The project would not have any significant impacts related to hazards or hazardous material.

4.9 HYDROLOGY AND WATER QUALITY

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Violate any water quality standards or waste discharge requirements?				✓
b. Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or situation on or off site?				✓
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on or off site?				✓
e. Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				✓
f. Otherwise substantially degrade water quality?				✓
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other				✓

flood hazard delineation?				
h. Place within a 100-year flood hazard area structures which impede or redirect flood flows?				✓
i. Expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam?				✓
j. Inundation by seiche, tsunami, or mudflow?				✓

4.9.1 Environmental Setting

Most of the project alignment is fairly flat but the south end of the alignment ascends a rather steep hillside. Three small drainages cross the alignment; however, no disturbance is proposed that would affect the natural drainages or alter the pattern of surface flows.

4.9.2 Standards of Significance

Project effects would be considered significant if they degraded a natural drainage, altered existing surface flow patterns, or increased the risk of flooding.

4.9.3 Answers to Checklist Questions

Question A

The minimal ground disturbance of 0.12 acre would not violate any water quality standards or waste discharge requirements.

Mitigation Measures

No mitigation is required.

Question B

The project would have no impact on groundwater supplies or natural discharge or recharge.

Mitigation Measures

No mitigation is required.

Question C

No grading or other actions that would alter drainage patterns or increase runoff are proposed.

Mitigation Measures

No mitigation is required.

Question D
No grading or other actions that would alter drainage patterns or increase runoff are proposed.

Mitigation Measures
No mitigation is required.

Question E
The project would not create or contribute additional runoff compared to existing conditions.

Mitigation Measures
No mitigation is required.

Question F
Project effects to water quality would be minimal because of the limited amount of ground disturbance and the use of Best Management Practices to control erosion.

Mitigation Measures
No mitigation is required.

Question G
No new housing is proposed.

Mitigation Measures
No mitigation is required.

Question H
The new power poles would not change existing flood flows.

Mitigation Measures
No mitigation is required.

Question I
No levees or dams are proposed to be created or modified in any way.

Mitigation Measures
No mitigation is required.

Question J
The project would not increase the risk of seiche, tsunami, or mudflow.

Mitigation Measures
No mitigation is required.

Findings
The project would not have significant effects on hydrology or water quality.

4.10 LAND USE AND PLANNING

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Physically divide an established community?				✓
b. Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?				✓

4.10.1 Environmental Setting
The project alignment is entirely within an existing utility easement on private property. The alignment passes through the small community of Hirschdale near the center of the project area. Existing power poles would be replaced by new poles in the same general location.

4.10.2 Standards of Significance
Project effects would be considered significant if the project divided a community or was in conflict with a land use plan or habitat conservation plan.

4.10.3 Answers to Checklist Questions

Question A
The project alignment passes through the community of Hirschdale in an existing utility easement. Neither the existing power poles nor the proposed new poles would act to divide the community.

Mitigation Measures
No mitigation is required.

Question B

The project would not conflict with an applicable land use plan, policy, or regulation.

Mitigation Measures

No mitigation is required.

Question C

The project would not conflict with an applicable habitat conservation plan.

Mitigation Measures

No mitigation is required.

Findings

The project would not have significant effects on land use or planning.

4.11 MINERAL RESOURCES

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

4.11.1 Environmental Setting

The project site is within a utility easement on private land. There are no known mineral resources in the project area.

4.11.2 Standards of Significance

The project would be considered to have significant effects if it hindered the extraction or use of mineral resources.

4.11.3 Answers to Checklist Questions

Question A

There are no known mineral resources in the project area.

Mitigation Measures
No mitigation is required.

Question B
There are no known mineral resources in the project area.

Mitigation Measures
No mitigation is required.

Findings
The project would not have significant effects on mineral resources.

4.12 NOISE

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. A Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
e. For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or publix use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

4.12.1 Environmental Setting
The project site is located in a rural setting with low density residences and light traffic. Noise levels are generally very low.

4.12.2 Standards of Significance

Any permanent noise source located near homes, schools, or businesses would be considered significant.

4.12.3 Answers to Checklist Questions

Question A

The project would not generate noise levels in excess of applicable standards.

Mitigation Measures

No mitigation is required.

Question B

Excavation of new holes to set the new power poles could cause some ground vibration but it is not anticipated to be excessive and would be of short duration. Only a few of the new pole locations are near homes.

Mitigation Measures

No mitigation is required.

Question C

No permanent increase in noise levels would result from the project.

Mitigation Measures

No mitigation is required.

Question D

During construction there would be a temporary increase in noise levels as new poles were installed. Approximately half the poles are close enough to Hirschdale that the noise would be quite noticeable to residents because of the normally low background noise level. However, the construction period would be limited and work would be restricted to normal work hours on Monday through Friday.

Mitigation Measures

No mitigation is required.

Question E

The project is not near a public airport.

Mitigation Measures
No mitigation is required.

Question F
The project is not in the vicinity of a private airstrip.

Mitigation Measures
No mitigation is required.

Findings
The project would not have significant noise effects.

4.13 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

4.13.1 Environmental Setting
Hirschdale is a very small community of perhaps a few hundred residents. The purpose of the project is to increase reliability of the existing electrical power distribution system and no new services would be provided.

4.13.2 Standards of Significance
Any new housing or infrastructure that could induce population growth would be considered a significant effect.

4.13.3 Answers to Checklist Questions

Question A
The project would increase the reliability of the existing electrical power distribution system but would not provide new service. The project is therefore not likely to induce population growth.

Mitigation Measures
No mitigation is required.

Question B
The project would not displace any residential housing or businesses.

Mitigation Measures
No mitigation is required.

Question C
The project would not displace any people.

Mitigation Measures
No mitigation is required.

Findings
The project would not affect population and housing in the vicinity.

4.14 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Fire protection?				✓
b. Police protection?				✓
c. Schools?				✓
d. Parks?				✓
e. Other public facilities?				✓

4.14.1 Environmental Setting
The project site is a sparsely populated rural area with minimal levels of public services.

4.14.2 Standards of Significance

Any increase in the required level of public services that would result from the project would be considered significant.

4.14.3 Answers to Checklist Questions

Questions A through E

The project would not result in any increased demand for public services such as fire, police, schools, or parks.

Mitigation Measures

No mitigation is required.

Findings

The project would not affect the required level of public services.

4.15 RECREATION

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

4.15.1 Environmental Setting

The project site is near the Truckee River and National Forest lands, which are popular recreational destinations.

4.15.2 Standards of Significance

Any construction of new recreation facilities or a change in the level of use of existing recreational facilities would be considered a significant effect.

4.15.3 Answers to Checklist Questions

Question A

No change in the use of existing recreational facilities would result from the project.

Mitigation Measures

No mitigation is required.

Question B

The project does not include recreational facilities nor would it require construction or expansion of existing recreational facilities.

Mitigation Measures

No mitigation is required.

Findings

The project would not affect recreation in the vicinity.

4.16 TRANSPORTATION/TRAFFIC

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Cause an increase in the traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			✓	
b. Substantially exceed individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risk?				✓
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				✓
e. Result in inadequate emergency access?				✓
f. Result in inadequate parking capacity?				✓
g. Conflict with adopted policies or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓

4.16.1 Environmental Setting

The project site is located in a sparsely populated rural area with no major roads and very light traffic volume.

4.16.2 Standards of Significance

The project would have a significant impact if it created a traffic hazard, delayed traffic flows, reduced parking, or hindered emergency vehicle access.

4.16.3 Answers to Checklist Questions

Question A

No change in traffic volume would result from the project.

Mitigation Measures

No mitigation is required.

Question B

No change in the level of service standards for roads or highways would result from the project.

Mitigation Measures

No mitigation is required.

Question C

No change in traffic patterns would result from the project.

Mitigation Measures

No mitigation is required.

Question D

The project would not increase hazards to traffic or create incompatible uses.

Mitigation Measures

No mitigation is required.

Question E

No change in emergency vehicle access would result from the project.

Mitigation Measures

No mitigation is required.

Question F

No change in parking capacity would result from the project.

Mitigation Measures

No mitigation is required.

Question G

No conflict with alternative transportation programs would result from the project.

Mitigation Measures

No mitigation is required.

Findings

The project would not have a significant effect on traffic and transportation.

4.17 UTILITIES AND SERVICE SYSTEMS

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b. Require or result in construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
d. Result in a determination by the wastewater treatment provider which services or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
e. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				✓
f. Comply with federal, state and local statues and regulations related to solid waste?				✓

4.17.1 Environmental Setting

The project site is located in a rural area that relies on septic systems and wells.

4.17.2 Standards of Significance

Any increase in the level of service as a result of the project would be considered significant.

4.17.3 Answers to Checklist Questions

Question A

The project would not generate any wastewater.

Mitigation Measures

No mitigation is required.

Question B

No new water or wastewater facilities or expansion of existing facilities is proposed.

Mitigation Measures

No mitigation is required.

Question C

No change in water supplies would be required by the project.

Mitigation Measures

No mitigation is required.

Question D

No wastewater would be generated by the project.

Mitigation Measures

No mitigation is required.

Question E

Solid waste would be generated only during construction. No new solid waste facilities would be required.

Mitigation Measures

No mitigation is required.

Question F

The project would comply with federal, state, and local statures and regulations related to solid waste.

Mitigation Measures
No mitigation is required.

Findings
The project would not have a significant effect on utilities and service systems.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			✓	
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of the past projects, the effects of other current projects, and the effects of probably future projects)?			✓	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

Answers to Checklist Questions

Question A
Project effects to wildlife, plants, and historic or archaeological resources would be minimal because of the small area of new disturbance. No impacts to listed or sensitive species are anticipated. No significant historic or archaeological resources are known to be present in the project area, and any such resources discovered during construction would be preserved in accordance with federal and state regulations

Mitigation Measures
No mitigation is required.

Question B

The project will increase the reliability and ease of maintenance of the existing electrical distribution system. Because there will be no increase in power distribution capacity and no new service areas, the project will have only negligible cumulative impacts.

Mitigation Measures

No mitigation is required.

Question C

Aside from minimal noise effects and possible inconvenience from construction traffic during the construction phase of the project, there will be no substantial adverse effects on human beings.

Mitigation Measures

No mitigation is required.

5.0 REFERENCES

California Geological Survey. 2006. Index to Official Maps of Earthquake Fault Zones. Available online at http://www.consrv.ca.gov/CGS/rghm/ap/Map_index/index.htm.

JBR Environmental Consultants, Inc. [JBR] 2005. *Constraints Study Report 608-621 Tie Line Project, Hirschdale, California.*

JBR Environmental Consultants, Inc. [JBR] 2006. *Sierra Pacific Power Company 608-621 Tie Line, Project Delineation of Waters of the United States, Hirschdale, Nevada County, California*.

PAR Environmental Services, Inc. [PAR]. 2005. *Record Search Results for the Hirschdale Project (PAR Ref. No. 05-5043).* Letter to Catherine Clark of JBR Environmental Consultants, Inc. dated October 24, 2005.

PAR Environmental Services, Inc. [PAR]. 2006. *Cultural Resources Inventory on a Segment of the Sierra Pacific Power Company 12.5 kV Line Near Hirschdale, Nevada County, California*.

U.S. Forest Service (USFS). 1994. *Soil Survey of the Tahoe National Forest Area, California*.

ILLUSTRATIONS